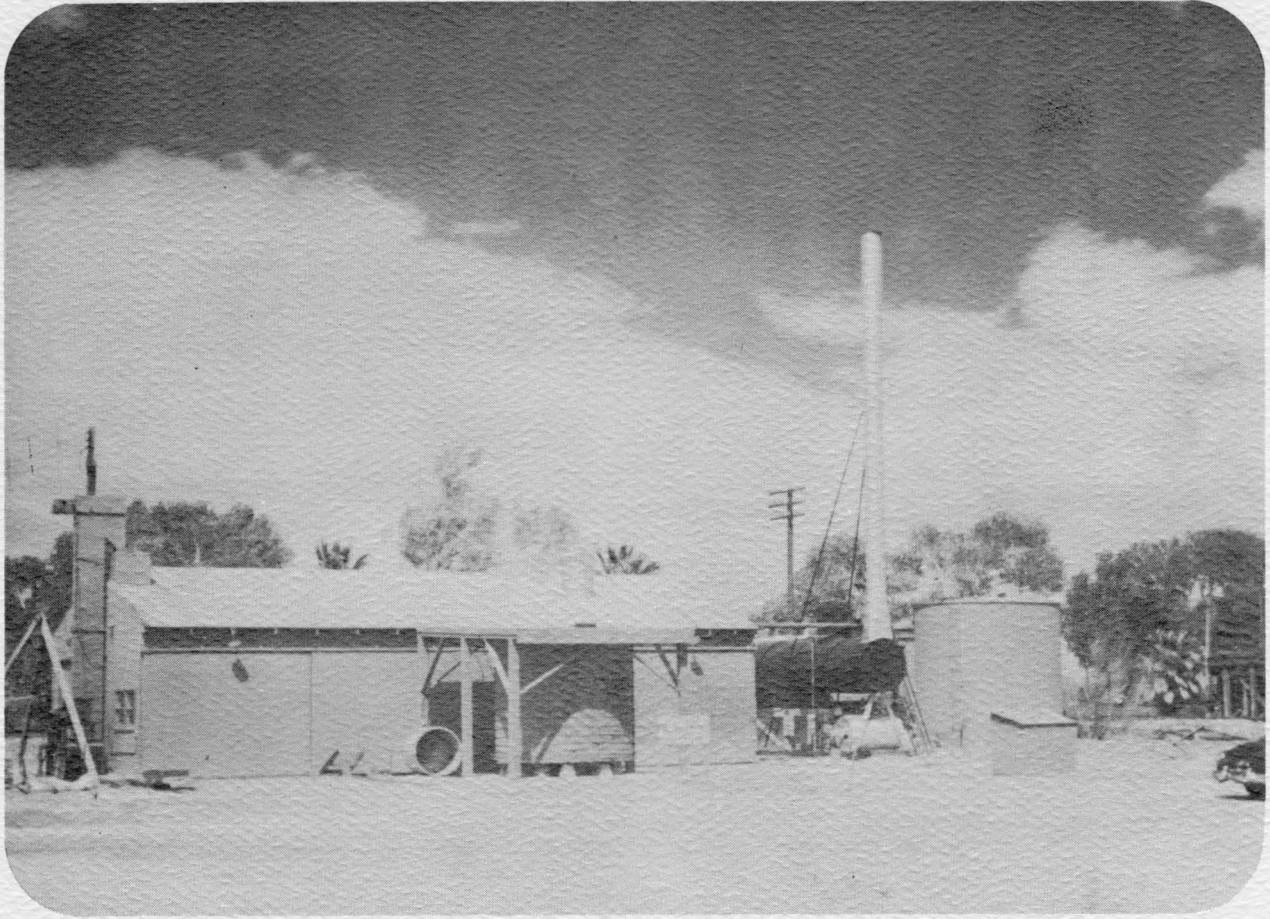


California Talc
American Tansul
Inerto Company
NL Chemicals



A pictorial history of
Hectorite Mining and Processing
in the Mojave Desert, 1930's—1960's
Hector and Newberry Springs, California

The history of NL Chemicals' mining and processing operations in the Mojave Desert was circulated originally among the firm's employees and their families. This second printing, in September, 1982, is being offered as a reference work to schools, historical organizations and similar community groups.



The Inerto Company processing plant at Newberry Springs. The building, a corrugated iron structure, 32 by 56 feet, began operation in 1952.

On the cover: Shaft at the Schundler Mine, circa 1944.

Publisher's note: To avoid confusion, the titles "NL Industries," "NL Chemicals" or, simply, "NL" are used when referring to the company described in these pages. The company at various times employed the following names for its operations at Hector and Newberry Springs—National Pigments and Chemicals Company, Baroid Sales Company of California, Baroid Sales Division/National Lead Company, Baroid Division/National Lead Company and NL Industrial Chemicals Division/NL Industries, Inc.

The publisher acknowledges the contributions of Mrs. Dorothy Staudinger, who graciously provided photographs from her personal collection, and of Mrs. Germaine Moon of the Mojave River Valley Museum Association, who rendered valuable research assistance.

History is both durable and fragile. There are, for example, the dates that everyone knows, 1492 and 1776, or the larger than life personalities who dominate their time, names like Caesar and Napoleon. Once fixed, they become the hard facts of history, unchanging. There is another, equally important aspect of history, however. It is the day-to-day stuff of life, the way people looked, the utensils they employed, the clothes they wore. History of this second kind, which serves to make the past truly relevant, is, unfortunately, particularly vulnerable to the wastings of time. Thus, the opening of a Pharaoh's intact tomb or the unearthing of a lava-covered Roman village reveals the furniture, the writing implements and the still-set supper table which uniquely, instantly, link past and present. Curiously, we are respectful of the mighty, yet we stand in awe before the commonplace.

This book chronicles history of the second sort—the "nuts and bolts" variety. The publication is essentially a photographic record of an approximately 30-year period, beginning in the early 1930's, illustrating hectorite mining and processing operations in the Mojave Desert of California by NL Chemicals.

Historical record keeping, always important, is especially significant at present, as social and technological changes succeed each other at a speed which can overwhelm and obliterate the past, often without a trace. The photos visibly indicate how rapidly time has impacted upon those who live and work in the desert and, indeed, upon the desert itself. Motor vehicles, tools and work methods bear the imprint of rapid evolution over three decades.

This book illustrates something more than the obvious fact that current mining and manufacturing methods differ from earlier versions. The photographs also graphically demonstrate that fragile continuity of history mentioned at the outset, the bond between yesterday and today. To present them in this fashion is to preserve a fragment of the past.

While the photos may be appreciated as a chronological record, a brief outline of significant names and dates (history of the first variety!!) will assist understanding.

NL Chemicals, an operating unit of NL Industries, Inc., presently maintains a mine, located near the Hector siding of the Santa Fe Railroad, and a processing plant, located at Newberry Springs, 18 miles away. Newberry is in the Mojave Desert, approximately 100 miles northeast of Los Angeles.

The mine produces hectorite clay, which, in refined form, is used in making water base paints, printing inks, cosmetics, pharmaceuticals, malt beverage stabilizers, grease and ceramics. It is sold commercially under several NL Industries' registered tradenames: Bentone L.T., Bentone E.W., Macaloid and Tansul 7.

NL Chemicals' Mojave operations trace their origins to the company's marketing of drilling muds to the petroleum industry. This activity began during the 1920's, when it was found that hectorite proved an excellent suspension and gelative additive for drilling compounds. In 1930, NL concluded a production and sales agreement with the California Talc Company, forming the Baroid Sales Company of California.

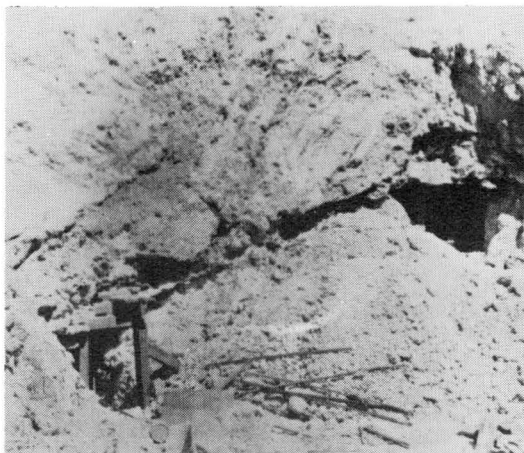
The manufacturing unit at Newberry Springs was opened in 1952 by the American Tansul Company of San Francisco. This facility was later purchased by the Inerto Company which, in 1964, sold its assets to NL, the operator of both mine and plant since that date.

The photographs in this book were collected at random over a period of about 50 years. All were taken by amateur photographers and, in the case of the older pictures, deterioration is apparent. However, perfection of reproduction was not the object in publishing this record. Rather, as author Susan Sontag has noted, "to collect photographs is to collect the world." In this case, the world was, and is, a particular place and a particular people in the California desert. A special place, stark in its beauty, vast in its silence, remote in its isolation and, yet, increasingly subject to the penetrations of a changing time. In small measure, these pages are a statement of the history of that world.

March, 1982

CALIFORNIA TALC COMPANY (North Group)

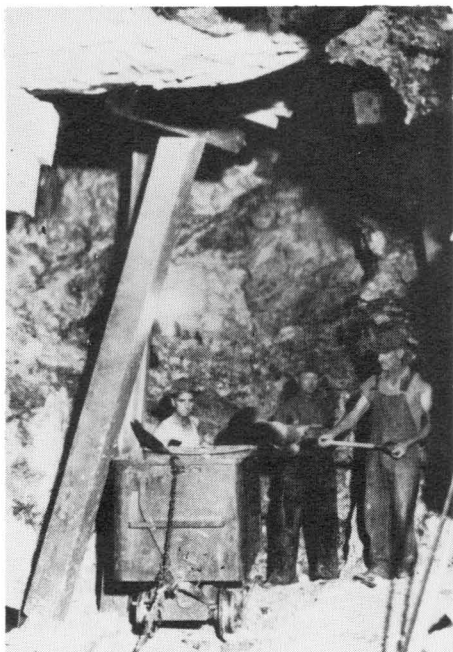
The California Talc Company's hectorite pit, located three miles north of the Santa Fe Hector siding, was covered with debris in a 1934 flash flood, resulting in abandonment of the diggings.



Collapsed tunnel showing effects of flood.



Single-car unit used to haul ore.



Unidentified workers seem unconcerned despite the precarious support.

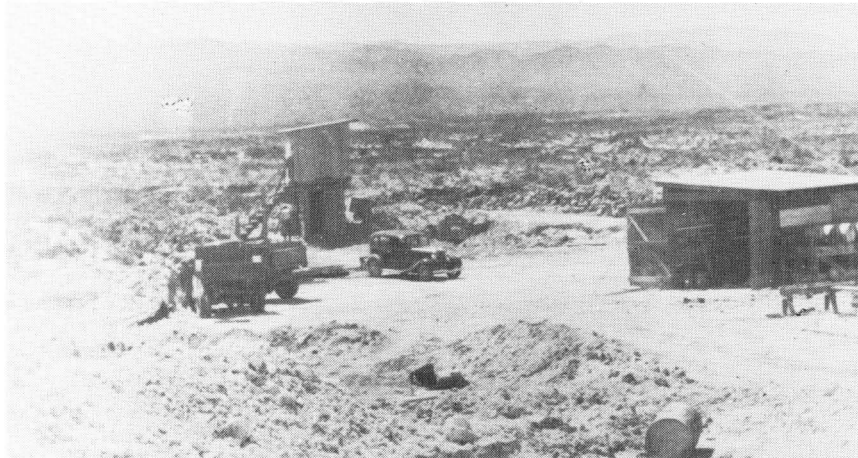


Impressions in the walls (photos above and below) of the collapsed mine indicate placement of roof support beams prior to flood.



CALIFORNIA TALC COMPANY (South Group)

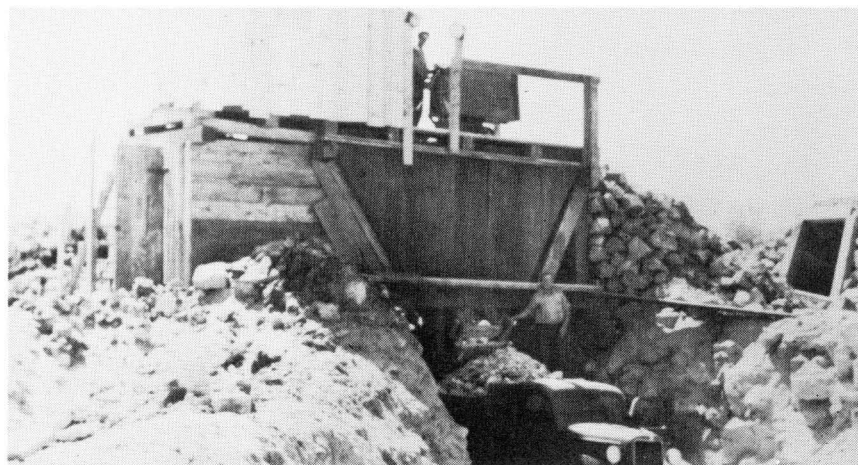
California Talc also maintained a camp, the Lemon Mine, in today's South Group. This page illustrates scenes from the mid-1930's.



Overview of the Lemon Mine camp in the mid 1930's, showing the hoist house and maintenance shop.



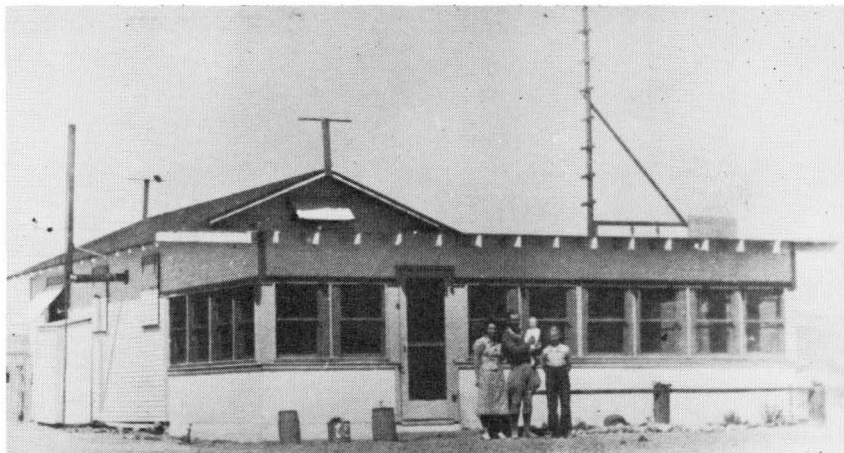
California Talc Company employees. Front row, left to right: _____ Farr, Superintendent Percy Staudinger, Charlie Goldsmith, Elmer Barber, Ross Farr and "Pop" Mellon. Rear row, left to right: Louis Hoerner, "Hardo" Mellon, _____ Dingman, Karl Diehl, unidentified, Pete Kelley and "Big Red" _____.



Incline shaft at Lemon Mine, circa 1937.

NATIONAL LEAD COMPANY

Development of the mining areas moved ahead during the 1930's, shown by these scenes of daily life during the period.



The "Mine House," constructed in 1937 by the National Lead Company, NL Chemicals' predecessor firm, for Superintendent Percy Staudinger and his family. The home was moved to NL's South Group mining camp (bottom, right) in 1945.



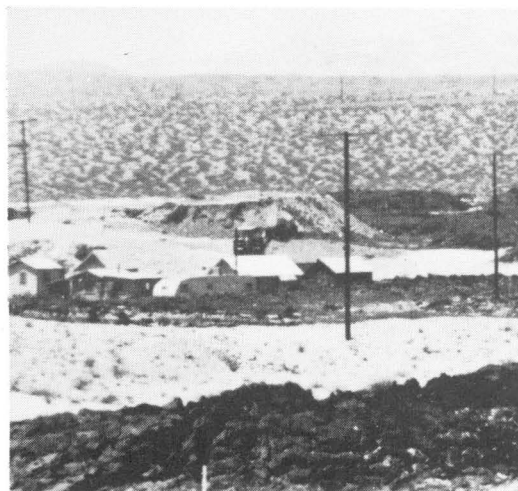
Loading hectorite in the late 1930's. The ore was dried on the wooden ground platforms and then hand-shoveled into dump trucks.



The Santa Fe's Hector siding was the loading point for dried ore for shipment to processing plants.

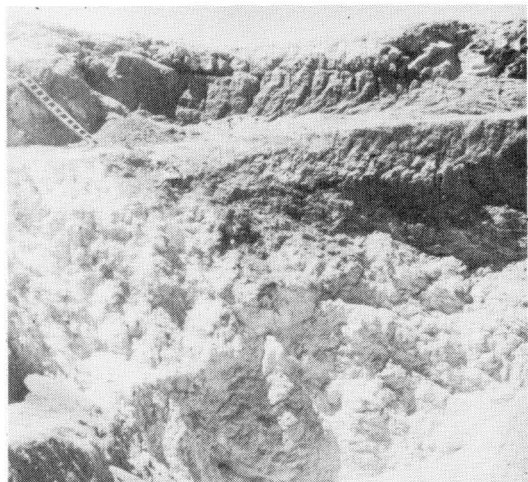


Seam of hectorite as it looked in the late 1930's. The area is in today's North Group.



PISGAH CRATER

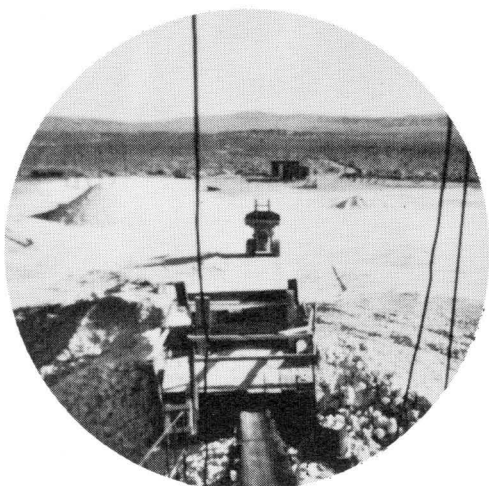
Today's arid desert seems far removed from the sea that once flowed over the Mojave. The pre-historic ocean provided some of the chemistry necessary to form hectorite.



In the mid-1940's, when this photo was taken, ore was mined in underground and open-pit sites.



Volcanic eruptions about 70 million years ago from now-extinct Mount Pisgah provided the raw materials for today's mining operations.



The Hector drying area, showing the office and tractor shed in background, was in continuous use from 1930 until replaced by mechanical equipment in the mid-1960's.



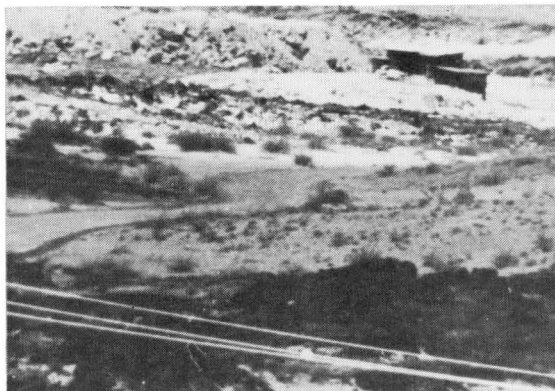
The Hector siding of the Santa Fe. Ore from individual mines was piled separately.

EARLY NL CAMPS AND EQUIPMENT

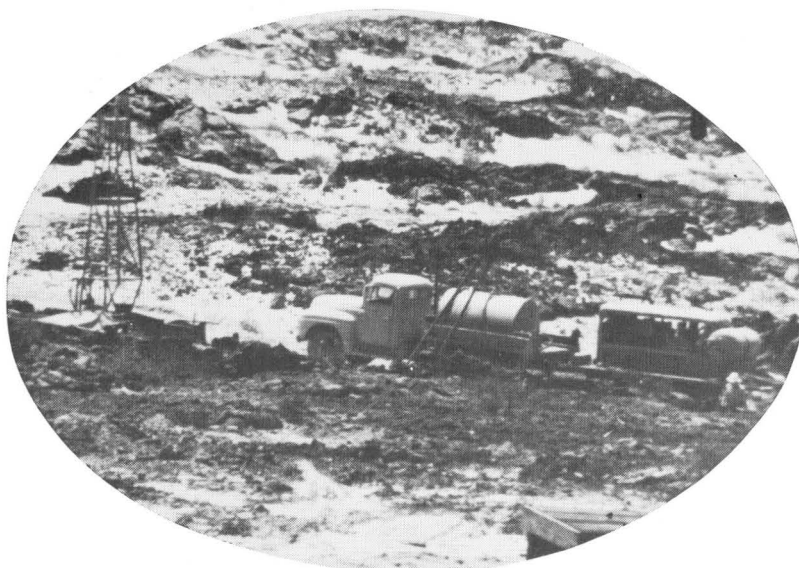
Views showing lifestyles and work situations of the 1930's and 1940's.



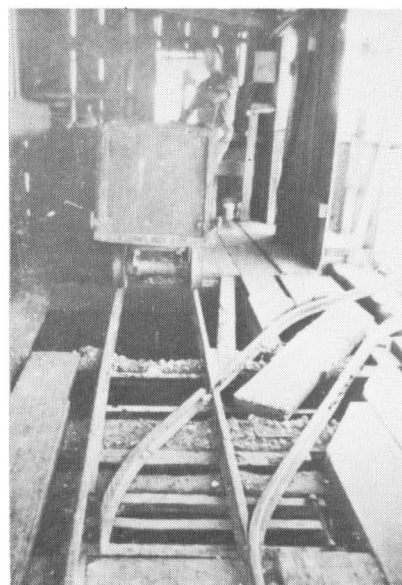
An unidentified watchman and his wife, who served as part-time bookkeeper, at their trailer home.



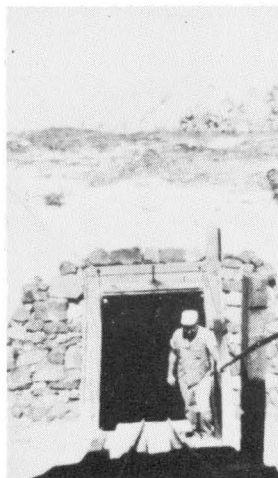
The Lemon Mine site in the mid-1940's.



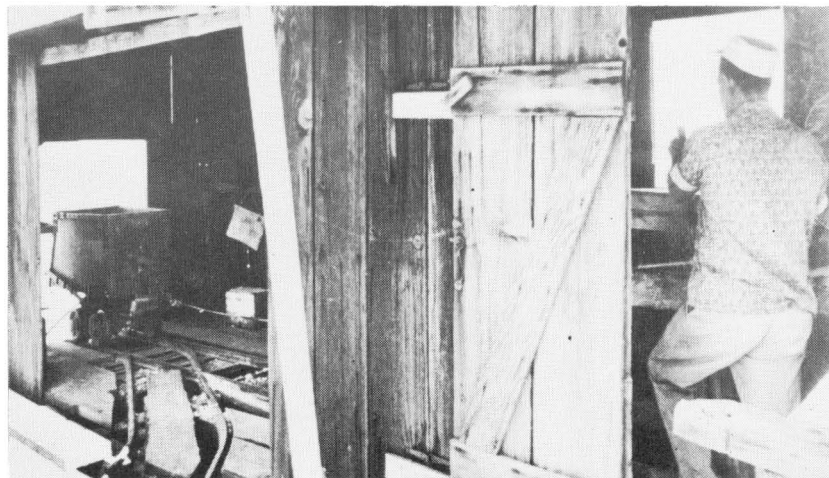
The core drill on the left was built by crewman on the site. The picture also shows a fresh water tank truck and a compressor of uncertain vintage.



The Lemon Mine hoist house.



The Lemon Mine incline shaft, as seen from the hoist house.



Another view of Lemon Mine hoist house.

SCHUNDLER MINING CAMP

A major ore source for many years, the Schundler Mine was extensively developed during the period 1944-64.



The Schundler Mine vertical shaft, with the ore bin fastened to the side and the ore chute above the truck bed. Hoist house and maintenance shop are also shown.



Cutting fir lumber to support underground tunnels. The saw was powered by the compressed air line seen in the foreground.

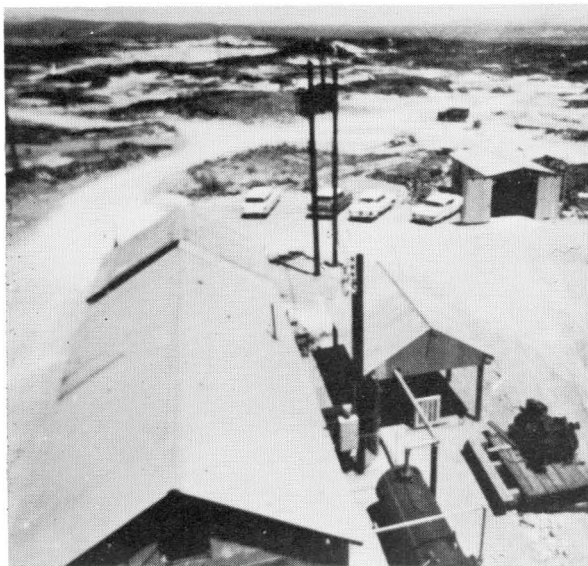


Shoring timber is lowered into the vertical shaft.



The mine's motorized fleet stands in the desert sun as workers go over a schedule.

SCHUNDLER MINING CAMP



Bird's eye view of the Schundler Mine site from the top of the shaft.



Superintendent Jack Hereford taking a "miniature" tour of the premises.



The maintenance shop tool shed at Schundler Mine.



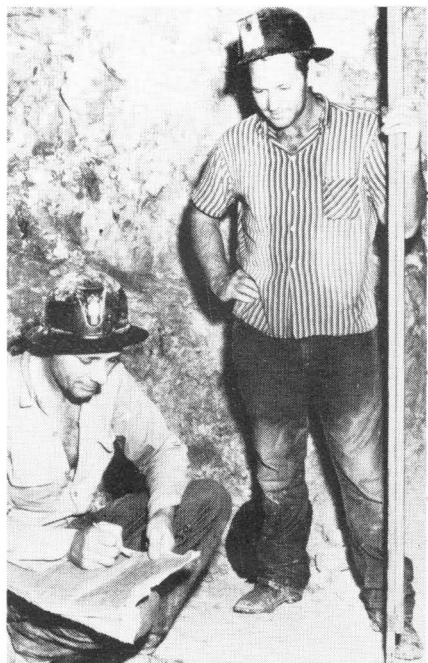
Ted Mason performing maintenance work on the compressor.



Mechanic Ben Morgan working at a drill press.

UNDERGROUND AT SCHUNDLER

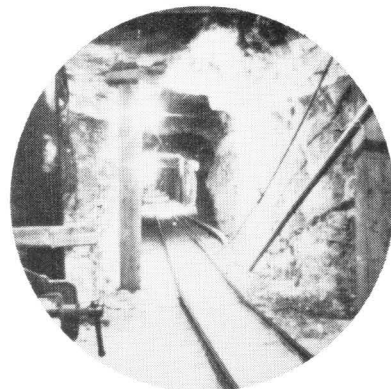
An entire community grew below ground as the Schundler Mine was developed as a major production center.



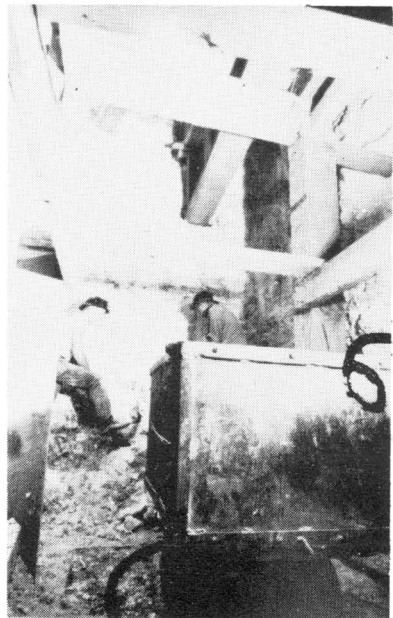
Unidentified miner (kneeling) and Jack McDonald planning the day's ore extraction.



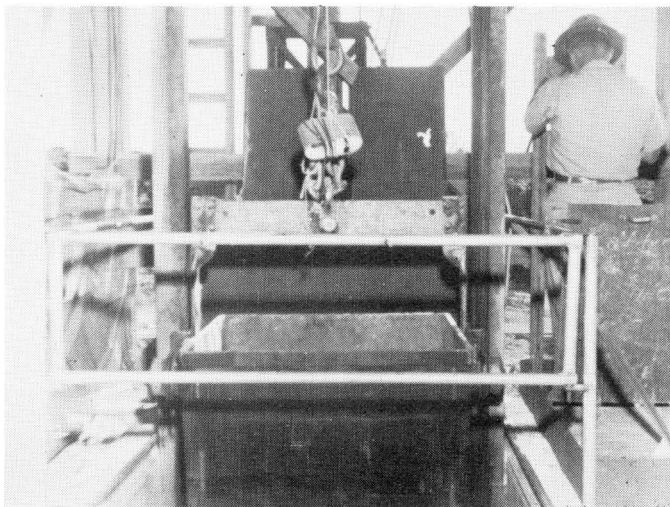
Miners setting dynamite charges to loosen ore.



One of the many tunnels in the Schundler Mine labyrinth.



Muckers handsorting hectorite and loading the ore car. Note the overhead air shaft.

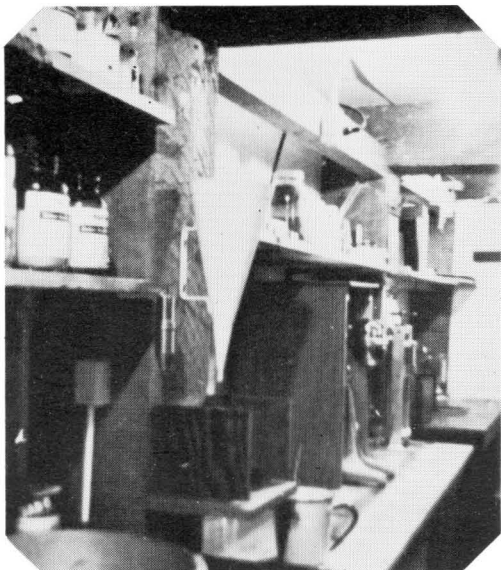


The ladder serves as a handy way to descend into the mine, particularly when the elevator is in use.

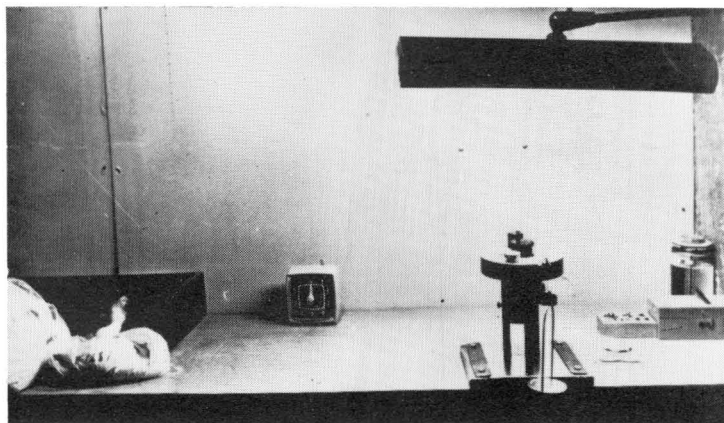


The underground ore sample storage room at Schundler, at one end of the laboratory.

UNDERGROUND AT SCHUNDLER



Four views of the underground laboratory at Schundler. Note the old scales, the Hamilton blender and other vintage equipment. Superintendent Jack Hereford had an office in the lab.



DYNAMITE LOOSENS HECTORITE

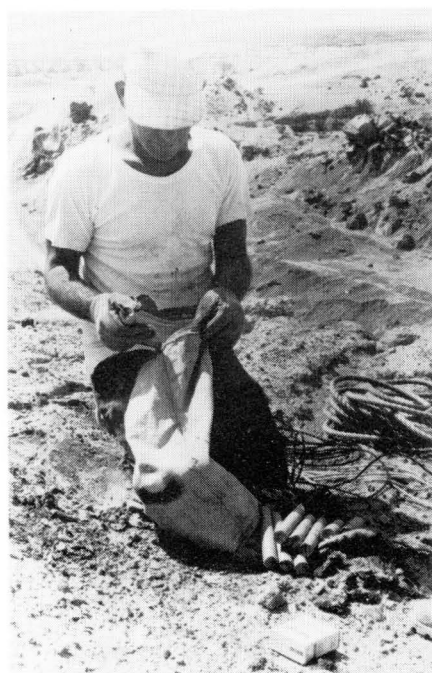
Less sophisticated than today's methods, but highly effective, the "hands on" technique of setting dynamite charges was the norm in an earlier period.



Readying a blast charge overlooking the Mag-Silicate Pit.



Jack Hereford and Frank Parker prepare the blasting charge.



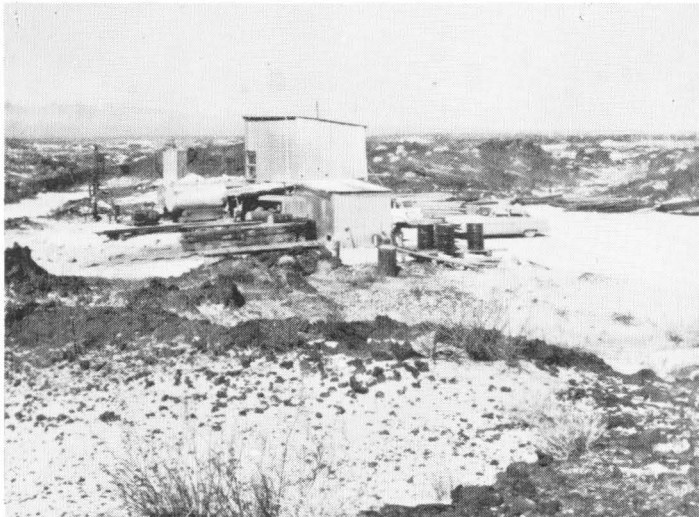
Frank Parker unloading dynamite sticks.



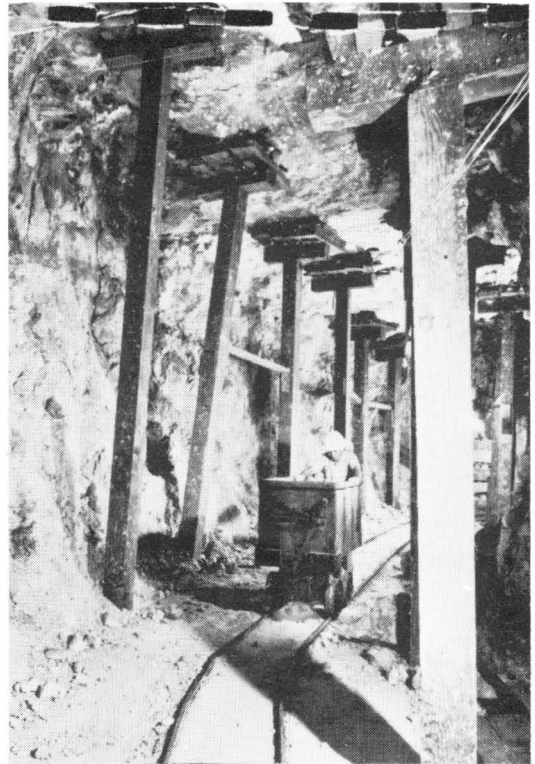
Checking the fuse once more before the blast. The waist rope was a safety line, used to haul a worker out of danger, if necessary.

INERTO MINING CAMP

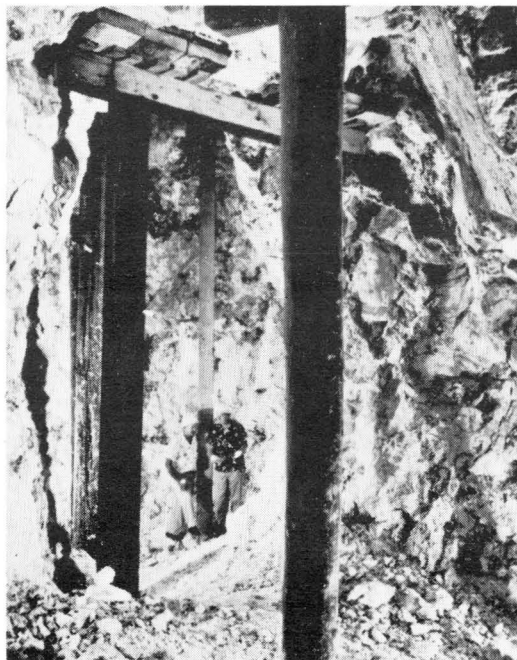
The Inerto Company developed this camp in the South Group. These photos were taken about 1960.



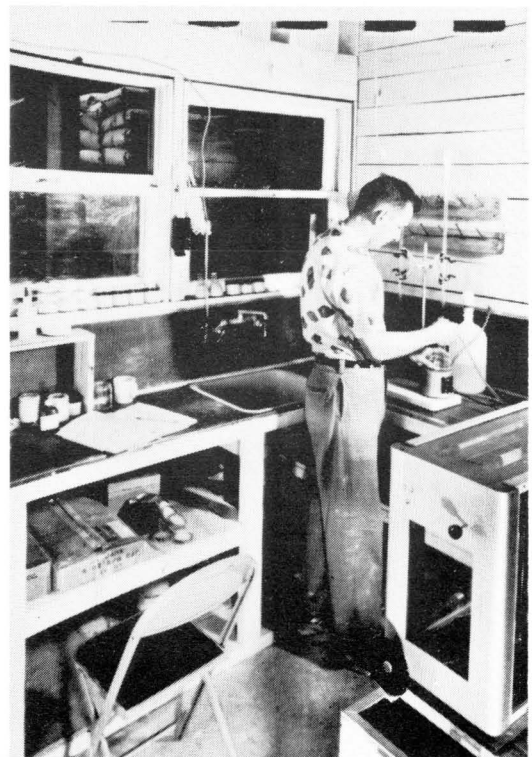
The hoist house, lumber yard and, in the center, the incline shaft at the Inerto Mining Camp.



Frank Gordon moving an ore car through a South Group tunnel.

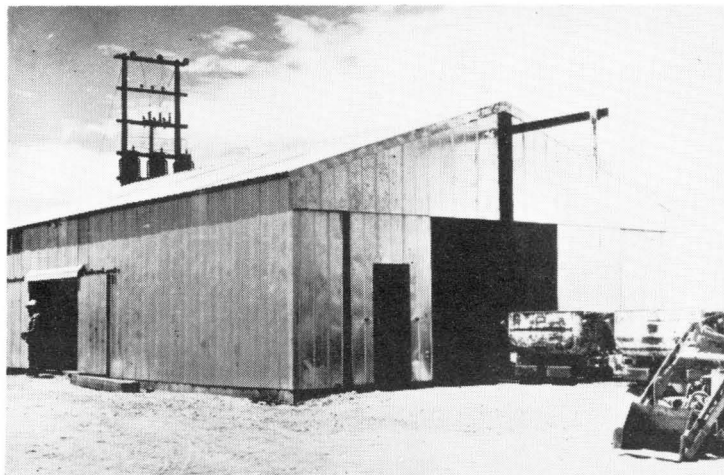


Percy Staudinger, left, and Walt Clymens assessing the hectorite vein.

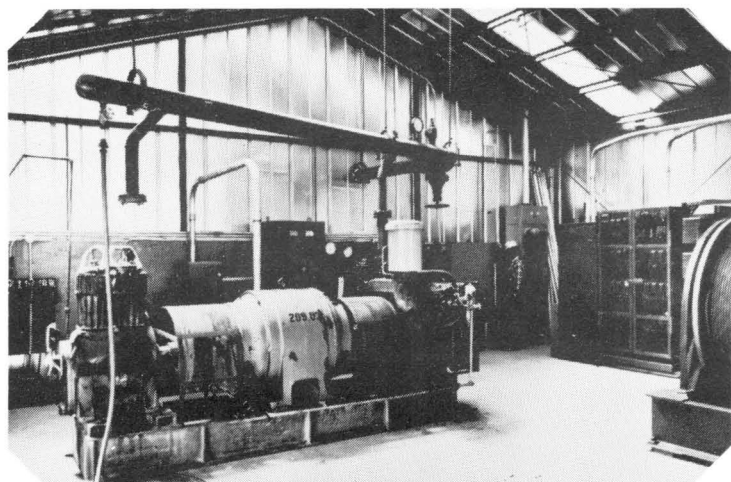


Lab technician Bob McAdam in the underground lab at the Inerto site.

INERTO MINING CAMP



The new hoist house at Inerto, built in 1961.



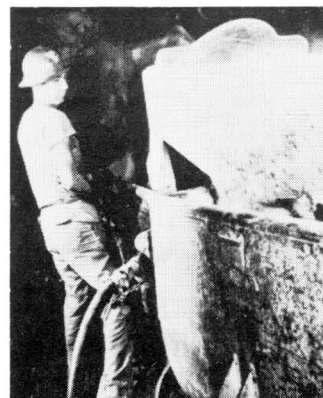
Interior views of the new hoist house. Bert Harrison is the operator.



Portal No. 2 at the Inerto Mine. Note the Gramby ore cars, a considerable improvement over the old rolling stock.



The automatic shovel in action, increasing productivity and easing the physical demand of the mining job.



INERTO MANUFACTURING PLANT

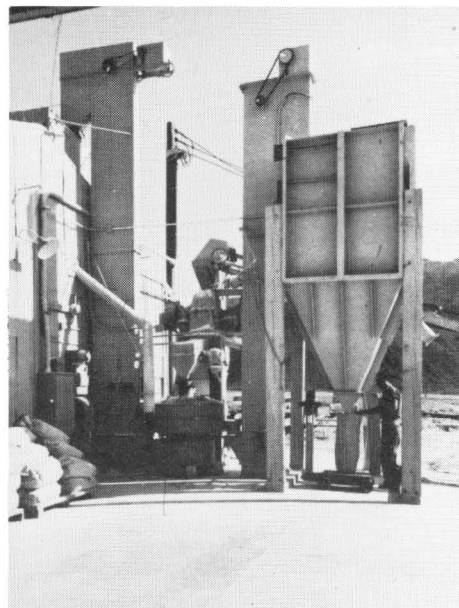
The original Inerto manufacturing plant, opened in 1952, is shown on the inside front cover. The facility shown on this and following pages developed through the 1950's and early 1960's.



The small structure on the left is the original Inerto manufacturing building at Newberry.



Ben Morgan at work in the wet room.

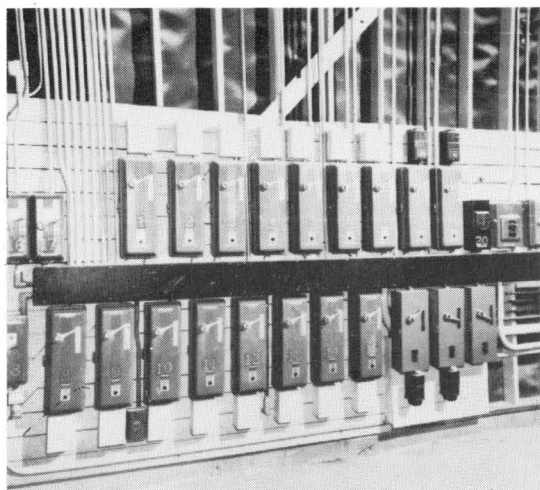


The Raymond Hammer Mill and crusher, foreground, with the Williams Mill in the rear.

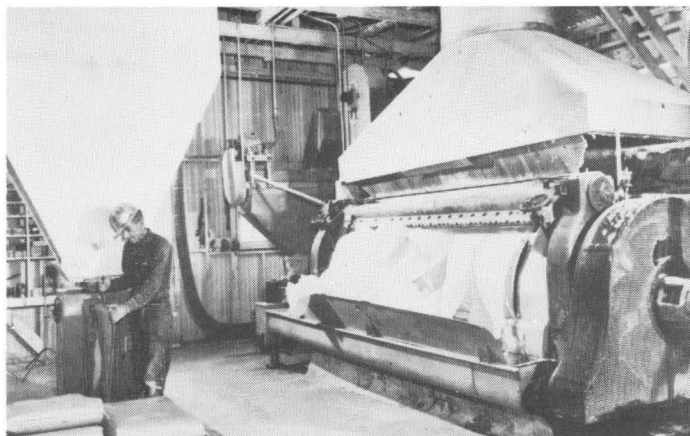


James Stevens in the wet room.

INERTO MANUFACTURING PLANT



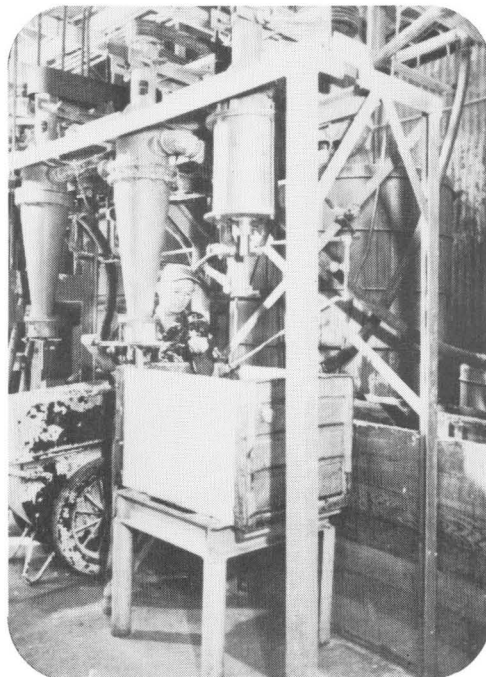
Power panel at the Inerto plant.



Bert Harrison packaging processed hectorite for shipment. The drum dryer is at the right.



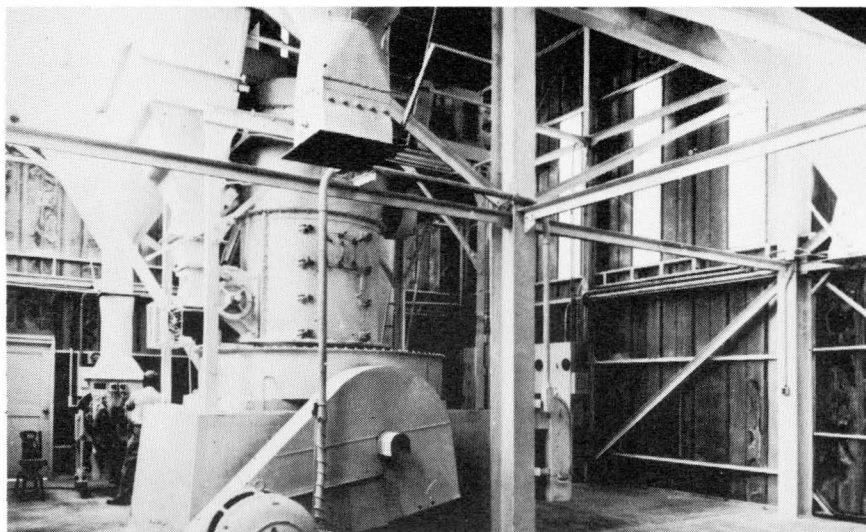
A corner of the warehouse, showing racks of refined hectorite ready for shipment.



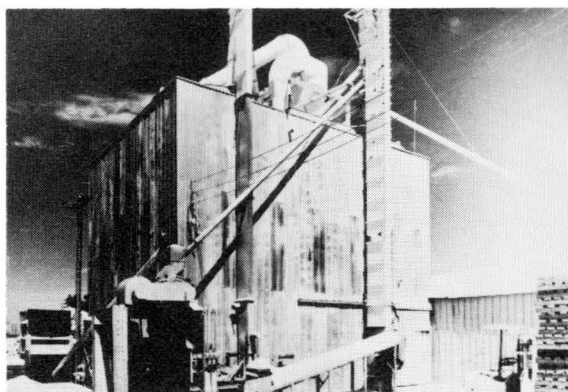
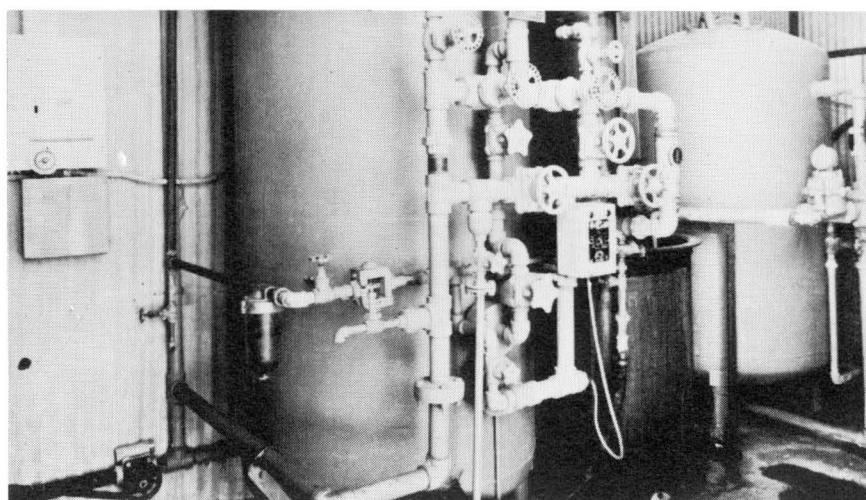
Another view of the wet room. Walt Clymens is the operator.

INERTO MANUFACTURING PLANT

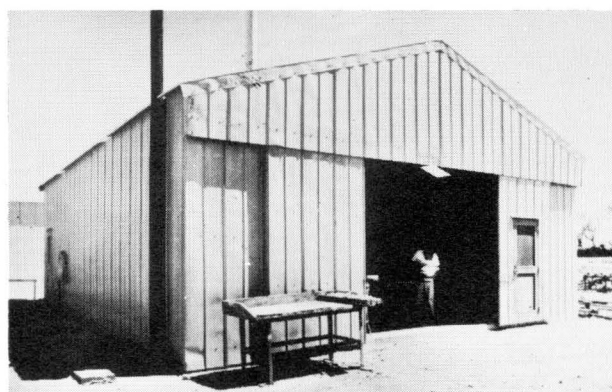
Inerto's Raymond Mill, moved from Emerville, California, and installed in 1958.



Inerto's new demineralizer, installed in 1958.



The Raymond Mill building.



The Inerto plant maintenance shop, Ernie Chaney is in the doorway.

DESERT BLAST

Hosted by Inerto Company owners in the late 1950's, the "Tansul Desert Blast" took place in the Granite Mountains, 80 miles from Hector, at Oscar Hoerner's iron claim, dubbed a gold mine for the occasion. The remote, hill country site was reached by bus and four-wheel truck. The days-long, still legendary party proved a highlight of the post-war period.



The Granite Mountains, the high country 80 miles from the NL mining property.



The end of the passable road for the bus, at Cottonwoods Wash in the Granite Mountains.



The four-wheel pickup, the only reliable transport to the "gold" camp. The camp cabin is in the background.



Frank LaBrash, left, and Oscar Hoerner, whose mining claims included land eventually transferred to NL ownership.

DESERT BLAST



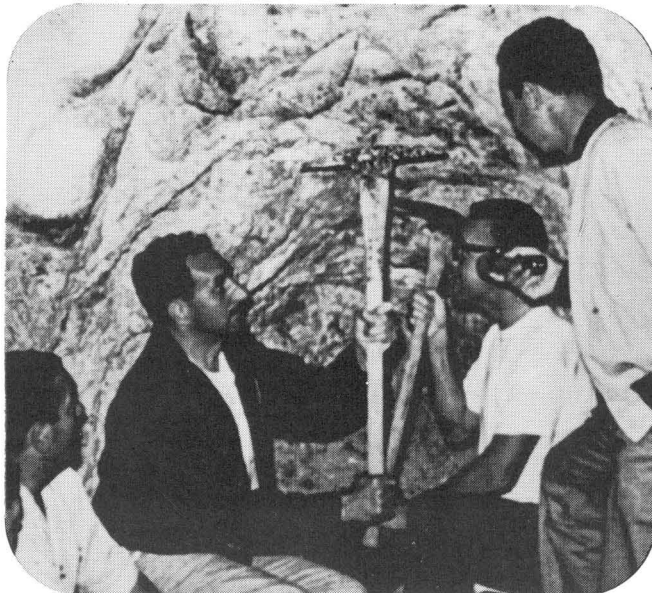
Left to right: two unidentified photographers, Indian guide, Ray McAdam and Oscar Hoerner.



Four owners of the Inerto operation pose with the Indian guide, center. Left to right: Len Burton, Henry Hinious, John J. Kennedy and Richard G. Shaller.



George Ziegler.



The Inerto crew searching (rather casually) for "gold".



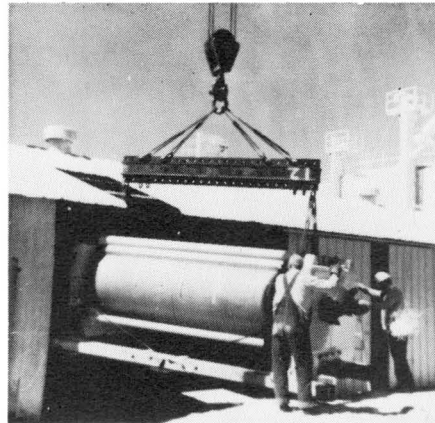
Left to right, rear row: Inerto owner Len Burton, unidentified, Inerto owner John J. Kennedy, unidentified. Front row, Bert Harrison, Percy Staudinger, Louis Capoblanco and Billy Weeks, currently NL Chemicals' Production Superintendent at Newberry.

NL's NEWBERRY EXPANSION, 1960's

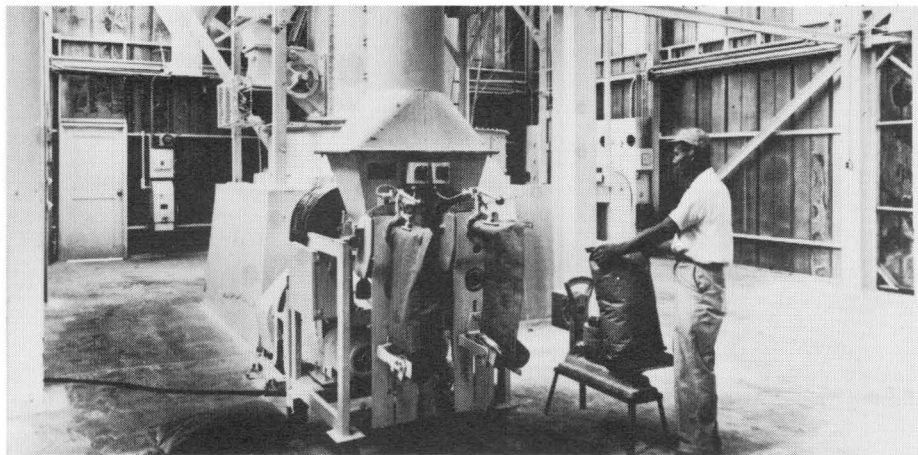
During the 1960's, NL Industries embarked on a major expansion of the Newberry processing plant. The following pages chronicle the development of that enlargement and demonstrate, in effect, the evolution of the contemporary manufacturing facility.



Hopper elevator, installed in 1968.



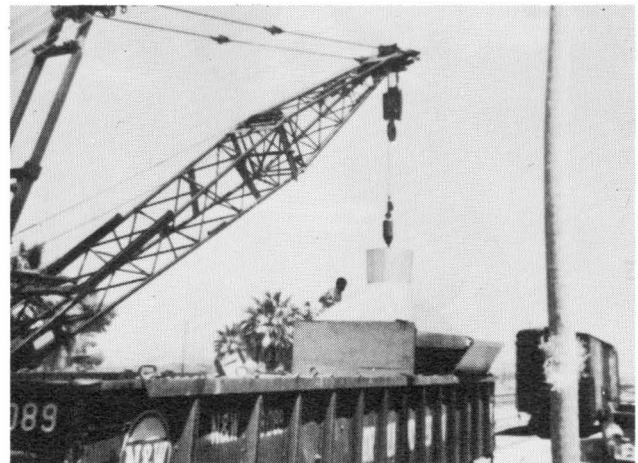
A new dryer is moved into the original building. The slot in the roof facilitates entry.



Ernie Chaney sacking crude "316" ore.



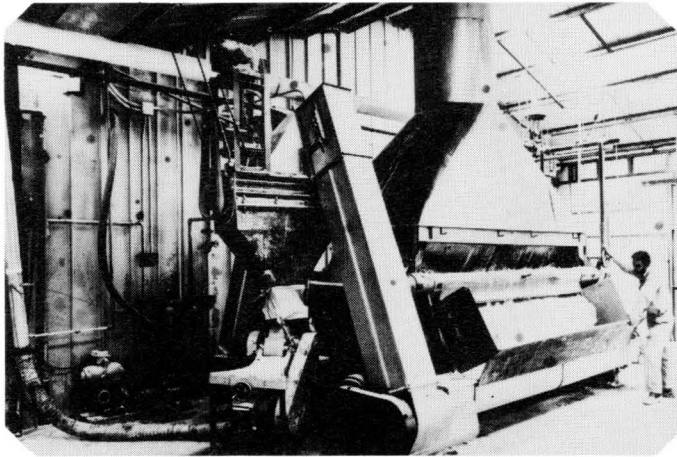
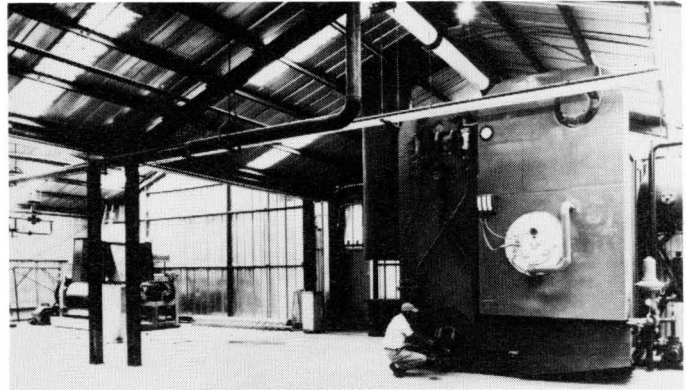
Installing Dryer No. 3.



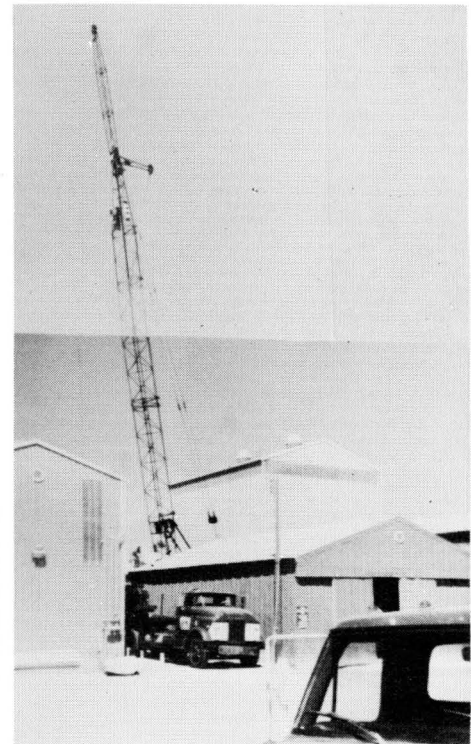
Unloading new equipment at the Newberry Springs rail siding.

NL's NEWBERRY EXPANSION, 1960's

James Chaney adjusting
the natural gas boiler.

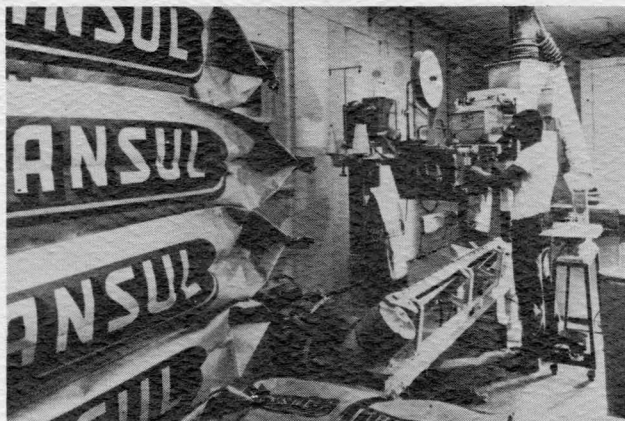


Tom Rhoads checking operations at
Dryer No. 2.



In April, 1968, NL Industries began modernization of the Inerto Plant. These photos show, top, the crane positioning machinery inside the original building and, below, the new, larger structure being erected around the 1952 plant.

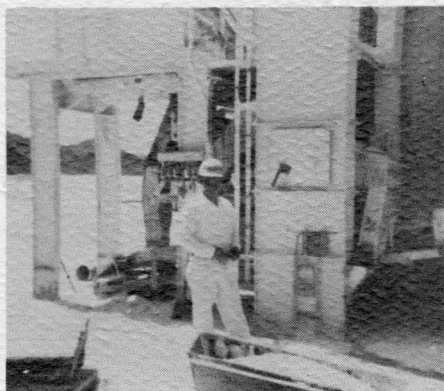
NL's NEWBERRY EXPANSION, 1960's



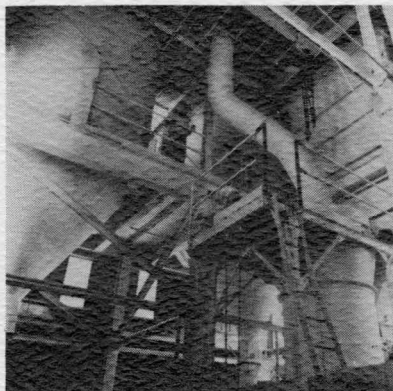
Bill Rommeck sacking Tansul 7.



A forklift is a considerable improvement over the earlier dump truck when loading product at the Newberry Springs siding.



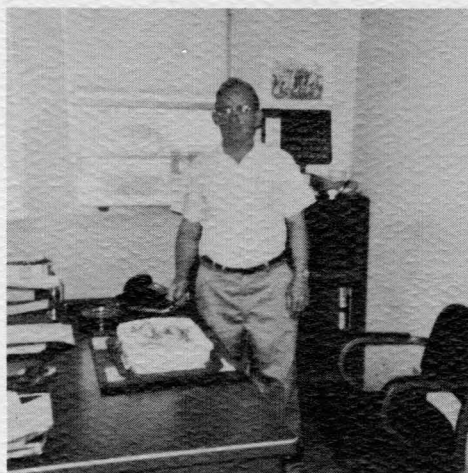
Crusher operator
Jose Rodriguez.



Overhead catwalks in the
Raymond Mill Building.



Buddy Smith adjusting
the gears in Dryer No. 1.



Superintendent Bob Stearns cuts
the going-away cake prior to his
1968 transfer to Houston.



Glen Shwartz, who succeeded
Bob Stearns in the Superintendent's job.



Seen from a distance, the present Newberry Springs plant etches a horizontal line suspended between desert and mountains.

NL Chemicals

NL Chemicals is a division of NL Industries, Inc. and is a leading producer and supplier of titanium dioxide pigments, anti-corrosive pigments, flow control agents, chemical specialties and operates mines producing ilmenite and hectorite ores.